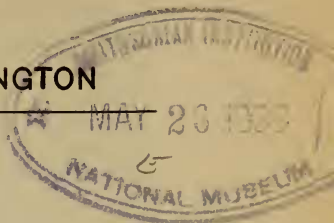


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A REVIEW OF THE SOUTHERN (*MELANOSTIGMA*) GROUP OF THE RED-HEADED LAUGHING-THRUSH, *GARRULAX ERYTHROCEPHALUS* (VIGORS), WITH DESCRIPTIONS OF TWO NEW RACES FROM SIAM.¹

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An examination of the Indo-chinese specimens of the Red-headed Laughing-thrush deposited in the collection of the United States National Museum has seemed to show the existence in the mountains of northern Siam of no less than two forms meritorious of subspecific recognition. I have been confirmed in this opinion by being enabled to add to the series at hand the specimens from southern Asia in the collections of the Field Museum of Natural History, the Academy of Natural Sciences of Philadelphia, the American Museum of Natural History, the Museum of Comparative Zoölogy, and the Princeton Museum of Zoölogy. Descriptions of the new forms will be found in the following pages, together with comment on related races already recognized.

Study of these difficult birds is complicated by the existence of great individual variation in museum skins. Robinson³ observes of *G. e. peninsulæ*, that "the plumage of this bird is very liable to fading, old skins and birds about to moult have the general colour—especially the edges of the primaries and the wing-coverts—very much paler; the under surface is also more ferruginous brown with the maroon tint of the breast almost absent." Berlioz (*loc. cit. supra*, p. 78) likewise says: "Cette espèce représente l'ensemble de formes le plus complexe de tout le genre *Garrulax*, étant donné la variabilité individuelle des caractères de coloration—alors que les caractères morphologiques restent au contraire très constants—

¹See also, Berlioz, J., in "L'Oiseau et la Revue française d'Ornithologie," vol. xi, no. 1 (January, 1930), pp. 78-85 (in reprint, pp. 28-35): "Revision Systématique du Genre *Garrulax* Lesson."

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³"The Birds of the Malay Peninsula," vol. ii, p. 197.

l'influence de l'âge sur le plumage et les nombreux termes de passage existant entre les différentes races géographiques apparemment bien définies."

After making due allowance for such variation, it is nevertheless possible to recognize within Indo-chinese limits not less than five forms. This is not surprising when we realize that these sedentary birds are limited in their distributions to those areas in which the mountains achieve an altitude in excess of 4,500 feet above sea-level, with the result that the species exists in isolated colonies.

I. *GARRULAX ERYTHROCEPHALUS PENINSULAE* (SHARPE).

Trochalopteron peninsulae Sharpe, Proc. Zool. Soc., 1887, p. 436 (Perak: Gunong Ijau).

Crown and nape deep *chestnut-maroon*; sides of head *dark ashy-gray*, almost converging on nape, each feather with an indistinct *darker gray* streak along exposed portion of shaft, becoming broader toward concealed base; ear-coverts *maroon-chestnut*, with narrow *ashy-gray* edgings; general color above *reddish-brown* washed with *olive*, the *reddish-brown* hue strongest on upper back; primary-coverts *jet-black*; point of chin *black*; throat and upper breast *deep maroon-chestnut*, gradually becoming a *more brownish* color on belly; feathers of breast glossy at tip, giving a scaly appearance in certain lights.

This, the southernmost form of the species, occurs upon the higher peaks of the Malay Peninsula from southern Selangor north to Perak, along the main range; on the Larut range of Perak; and on Gunong Benom and Gunong Tahan in Pahang (Robinson).

Specimens have also been taken on the high mountains of Bandon province, Peninsular Siam; they are "certainly very much closer to the Malayan than they are to be (*sic*) Tenasserimese race, but have the crown and throat very slightly paler" (Robinson and Kloss).⁴

II. *GARRULAX ERYTHROCEPHALUS MELANOSTIGMA* (BLYTH).

Trochalopteron melanostigma Blyth, Journ. Asiat. Soc. Bengal, vol. xxiv, 1855, p. 268 (Tenasserim: Mt. Muleyit).

Trochalopteron ramsayi Ogilv.-Grant, Bull. B. O. C., vol. xiv, 1904, p. 19 (Karen-ni).

Crown and nape *chestnut*; sides of head *silvery-gray*, not convergent on nape, each feather with a narrow but distinct *dusky-brown* streak along exposed portion of shaft, becoming broader toward concealed base; ear-coverts *dusky-brown*, with broad *silvery-* or *pinkish-gray* edgings; general color above:

Type 1, *brownish-olive* washed with *reddish* (especially on upper back, giving appearance of vague collar);

Type 2, *grayish-olive*, with scarcely noticeable *reddish* wash on extreme upper back;

Type 3, *grayish-olive*, *reddish* wash almost completely absent;

⁴Journ. Nat. Hist. Soc. Siam, Bangkok, vol. v, no. 3, p. 285.

Primary-coverts *jet-black*; chin and sides of throat below ear-coverts *black*; color below:

Type 1, center of throat and upper breast *maroon-chestnut*, becoming a *light red-brown* or *bright tawny* on lower breast and belly;

Type 2, center of throat and upper breast *maroon-chestnut*, becoming *olive-tawny* on lower breast and *olive-washed tawny* on belly;

Type 3, center of throat *maroon-chestnut*, breast and belly *olive*, suffused with *tawny*;

Feathers of breast glossy at tip, giving a scaly appearance in certain lights—this shows better in birds with more red on breast (types 1 and 2).

Type 1 represents the bird named *ramsayi* by Ogilvie-Grant, on the basis of skins taken by Wardlaw Ramsay in Karen-ni. It seems to be impossible to recognize this "race," in the absence of any definite range: *melanostigma* occurs both north and south of Karen-ni, while *ramsayi* occurs both north and south of Mt. Muleyit. A skin taken by Hopwood on Mt. Nwalabo and marked "breeding" by the collector (U. S. N. M. No. 263978) agrees with the type-specimen of *ramsayi* (N. B. Kinnear in *epistola*) as well as with one of Grant's paratypes now in the American Museum of Natural History.

Moreover, birds representing more than one type occur at the same localities. I have before me topotypes of *melanostigma*, belonging to types 2 and 3. (Blyth's type-specimen seems to belong to type 2, the commonest phase.) Wardlaw Ramsay,⁵ commenting on his collection from Karen-ni, says of this species: "In some specimens the ferruginous-chestnut colour of the throat and breast is continued over the whole lower surface." (Italics are mine.) It would almost seem that Grant had selected from the series only those birds which suited his purpose.

No one seeing these birds, with the three types differing only in the degree of suffusion of the reddish color, and the extremes linked together by type 2, could believe for a moment that we are here concerned with more than a single form. It is essential then to consider *ramsayi* (1904) simply a synonym of *melanostigma* (1855).

Melanostigma in its various phases is found in Tenasserim south to Mt. Nwalabo, north through the District of Karen-ni, and as far as the Shan State of Möng Kōng.

The species occurs again commonly on certain of the highest peaks of Chiangmai province, northern Siam. In these localities the bird is comparatively stable, having only one phase of plumage, corresponding to *melanostigma* type 3, but generally grayer. This form may be known as:

III. *Garrulax erythrocephalus schistaceus*, subsp. n.

Crown and nape *chestnut*; sides of head *silvery-gray*, not convergent on nape, each feather with a narrow but distinct *blackish* streak along exposed portion of shaft, becoming broader toward concealed base; ear-coverts *blackish* with broad *silvery-* or *pinkish-gray* edgings; general color above *deep mouse-gray* (Ridgway) with *faint olive wash*; primary-coverts *jet-black*; chin and sides of throat below ear-coverts (sometimes center of upper

⁵Ibis, 1877, p. 464.

throat as well) *black*; rest of throat *maroon-chestnut*, this color rarely extending as far as upper breast; breast and abdomen *deep mouse-gray* (Ridgway) *faintly suffused with tawny* over mesial area; feathers of breast glossy at tip, the tendency to a scaly appearance more highly developed than in *melanostigma* type 3.

Type.—adult male, no. 336871, United States National Museum; collected on Doi Chiangdao, 7,000 feet, Chiangmai province, western North Siam, 19 March, 1937, by the author.

The new form reaches its highest development on the dolomite mass of Chiangdao. Skins from other localities show approximation to related subspecies in a logical manner.

On Doi Angka, the Siamese locality for the species nearest to Mt. Muleyit, occurs a bird which is very near *melanostigma* type 3, but with the upperparts of a purer grayish-olive and the underparts with a much fainter tawny suffusion. These birds may be considered as:

GARRULAX ERYTHROCEPHALUS MELANOSTIGMA > SCHISTACEUS.

On Doi Suthep, half-way between Doi Angka and Doi Chiangdao, is found a form with the pure grayish-olive upperparts of the Angka specimens, but with the underparts still more gray and less suffused with tawny. It is best represented as:

GARRULAX ERYTHROCEPHALUS MELANOSTIGMA × SCHISTACEUS.

The range of *schistaceus* will be found to extend from Doi Chiangdao north through the mountains as far as the Southern Shan State of Kengtung, where it inosculates with another form (see discussion below).

In the central provinces of northern Siam the species is still unknown and probably does not occur, in the absence of sufficiently high altitudes. It is found again within Siamese limits in the complex of hills over 5,000 feet high in the northeastern corner of Nan province. The form resident in this district is nearest to *G. e. connectens* (Delacour) of Laos and Tongking, but is sufficiently distinct to justify the erection of yet another name, which will be:

IV. *Garrulax erythrocephalus subconnectens*, subsp. n.

Crown and nape *chestnut*; sides of head *silvery-gray*, not convergent on nape, each feather with a narrow and rather indistinct *dusky-brown* streak along exposed portion of shaft, becoming broader toward concealed base; ear-coverts *dusky-brown* with broad *silvery-* or *pinkish-gray* edgings; general color above *grayish-olive*; primary-coverts *black*, sometimes with a faint wash of golden-green on concealed portion of outer webs; chin and sides of throat below ear-coverts *black*; center of throat a rather *dull maroon-chestnut*; breast and belly *olive-gray lightly washed with tawny*, the tawny sometimes quite vivid on the mesial area; the scaly appearance caused by the *brownish-gray* edgings of the breast-feathers is obvious in any light and is almost as highly developed as in the form *connectens*.

Type.—Adult male, no. 350108, United States National Museum;

collected on Phu Kha, 5,000 feet, Nan province, eastern North Siam, 6 April, 1936, by the author.

Delacour, in describing *connectens*, makes reference to a pair of skins from Loi Pangnan (Southern Shan States) which have "pure black primary-coverts," but are otherwise close to his race. As these probably belong to the form here described, the range of this bird will extend on the high peaks west of the Me Khong from northern Nan into the eastern part of Kengtung.

From Kyu Loi, farther west in the same State, I have seen two specimens which are somewhat intermediate between this race and *schistaceus*. One agrees well with topotypical *schistaceus*; the other has a slightly stronger olive wash above and a pale tawny suffusion over the mesial area below. Each has the tendency to a scaly breast slightly more highly developed, especially on the sides. I consider these birds to be:

GARRULAX ERYTHROCEPHALUS SCHISTACEUS > SUBCONNECTENS.

V. GARRULAX ERYTHROCEPHALUS CONNECTENS (DELACOUR).

Trochalopteryx erythrocephalus connectans [sic] Delacour, Bull. B. O. C., vol. xlix, 1929, pp. 58-59 (Laos : Phu Ke, Xieng Khouang).

Crown and nape *chestnut*; sides of head *silvery-gray*, not convergent on nape, each feather with a narrow and rather indistinct *dusky-brown* streak along exposed portion of shaft, becoming broader toward concealed base; ear-coverts *dusky-brown* with broad *silvery-* or *pinkish-gray* edgings; general color above *grayish-olive*; primary-coverts *dark golden-green*, occasionally blackish on inner webs, especially toward base; chin and sides of throat below ear-coverts *black*; center of throat a rather *dull maroon-chestnut*; breast and belly *olive-gray*, more or less heavily washed everywhere with *tawny*; each feather of the breast with a *brown* central portion and a *gray* edging.

G. e. connectens is an abundant bird in the higher hills of Upper Laos and in the dependency of Tongking.

A deal of collecting remains to be done in Yunnan and the Shan States before we shall understand the interlacing and inosculation of races in that area, where we are concerned with the subspecies *melanostigma*, *schistaceus*, *subconnectens*, and *connectens* of the southern group, and with *woodi* and *forresti* of the northern group.

SPECIMENS EXAMINED.

1. *G. e. peninsulae*: 7.
2. *G. e. melanostigma*, type 1 : 3.
3. *G. e. melanostigma*, type 2 : 5.
4. *G. e. melanostigma*, type 3 : 2.
5. *G. e. melanostigma*, type 3 > *schistaceus*: 11.
6. *G. e. melanostigma*, type 3 × *schistaceus*: 1.
7. *G. e. schistaceus*: 3
8. *G. e. schistaceus* > *subconnectens*: 2.
9. *G. e. subconnectens*: 3.
10. *G. e. connectens*: 30.

I am indebted to the authorities of the museums named above, who have kindly put at my disposal the specimens in their charge. I have also to thank Mr. N. B. Kinnear of the British Museum of Natural History, who has been so good as to compare with the types deposited in London certain of my skins sent him for that purpose. Finally, my thanks are due to the ornithologists of the National Museum, who have been generous with advice during my work.

P. S.—Since these notes have gone to press, Mr. R. M. De Schauensee has courteously forwarded to me a series of 16 examples of this species, which he has just received from a new Siamese locality: Doi Pha Hom Pok, a mountain over 8,000 feet high, forming part of the boundary between Chiengrai province and the Southern Shan State of Mu'ang Hang, and situated about half-way between Doi Chiengdao and Kyu Loi. These specimens agree perfectly with topotypical *schistaceus*, and their provenance lies within the range predicted for this form above (p. 90).